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22879 7590 03/05/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER				
BRANDT, CHRISTOPHER M				
ART UNIT		PAPER NUMBER		
2617				
NOTIFICATION DATE		DELIVERY MODE		
03/05/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/769,090

**Applicant(s)**

MIU ET AL.

**Examiner**

CHRISTOPHER M. BRANDT

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

In view of the Appeal Brief filed on November 17, 2008, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/George Eng/

Supervisory Patent Examiner, Art Unit 2617

### ***Response to Arguments***

Appellant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

With regard to appellant's argument that by disclosing splitting of information to be sent from several CSs, that Rimhagen teaches away from the suggested medication to provide for handing

off streaming media, as disclosed in Apostolopoulos, the examiner respectfully disagrees.

Rimhagen provides data to mobile stations via multiple base stations when the mobile cannot be served by a single station (column 2 lines 6-12, column 4 lines 3-4, 16-35, 43-46, and 53-62).

The present application recites a plurality of access points to be used cooperatively in combination with each other for transmission of data to a receiver. Therefore, Rimhagen pertains to appellant's invention. The examiner also notes that channel allocation, which is what the present application largely applies to, overlaps into the handoff area of wireless communication. After all, when a mobile station moves from one area to another area, the base stations are cooperating to allocate resources for the moving mobile station. The examiner supports this assertion by drawing appellant's attention to the abstract of Rimhagen. Rimhagen states that "a user requiring three time slots per frame in order to aggregate sufficient bandwidth may be in communication with three different cells during each frame. The present invention may additionally be applied in the context of handoffs, when, for example, an MS continues to be partially served by the previous cell before the new cell is able to service the high data-rate information flow." Therefore, Rimhagen is applicable to handoffs, which is disclosed by Apostolopoulos and Bernhard (as appellants have disclosed). As a result, Rimhagen does not teach away from Apostolopoulos and Bernhard. Therefore, the combination of Rimhagen, Apostolopoulos, and Bernhard would not require substantial reconstruction and redesign.

With regard to appellant's argument that the instant Office Action does not explain why the differences between Rimhagen, Apostolopoulos, and Bernhard and appellants' claimed features would have been obvious to one of ordinary skill in the art, the examiner respectfully disagrees. In the Office Action dated July 15, 2008, the examiner stated on page 4, last

paragraph, "Therefore, it would have been obvious to one of ordinary skill in the art...in order to produce usable quality." It is noted that this motivation was found in the Apostolopoulos reference in paragraph 40.

The examiner relied upon Apostolopoulos to provide appellants with evidence that one of ordinary skill makes determinations of the performance of access point(s) that are used for transmission of data to mobile stations. Apostolopoulos is analogous to Rimhagen because both references pertain to scheduling of data in situations such as congestion and handover (Rimhagen; column 4 lines 56-60, column 5 lines 57-60, Apostolopoulos; paragraph 45). Rimhagen specifically teaches that data is provided to mobile stations via multiple base stations when the mobile cannot be served by a single base station (column 2 lines 6-12, column 4 lines 3-4, 16-35, 43-46, and 53-62). A situation similar to this might occur due to congestion, interference, or handoff, which therefore causes a loss of quality. When such situations occur, the network has to be informed so that the appropriate action can be taken (i.e. transmitting data to a mobile station via a plurality of base stations (column 4 lines 53-62, column 5 lines 20-28, lines 54-56, column 6 lines 27-44)). Therefore, such a feature as determining the performance of at least one of said access points being used for the transmission must be in Rimhagen's method in order for the cooperative transmission to occur. Nonetheless, the examiner relied upon Apostolopoulos to explicitly show appellant this limitation.

Moreover, the examiner relied on Bernhard to show the feature of timestamps and how the performance is based on examination of these timestamps. The usage of timestamps is well known in the art; however, the examiner provided appellants with Bernhard since this reference pertains to scheduling of data in the case of performing handover (paragraph 16). Rimhagen and

Apostolopoulos as stated above, pertain to distribution/scheduling of data in situations such as congestion and handover. Bernhard teaches that a handling of timestamp drifting between the cells shows improved performance with separate PDU schedulers (paragraphs 22, 59). These schedulers are coupled over cell boundaries in order to transfer data flow to be handed over from a current scheduler in a current cell to a target scheduler in a target cell (paragraph 31). Bernhard is analogous to Rimhagen and Apostolopoulos since both references are applicable to handoff (Rimhagen; column 4 lines 56-60, column 5 lines 57-60, Apostolopoulos; paragraph 45).

Lastly, the examiner provided reasons for obviousness in combining Bernhard with Rimhagen and Apostolopoulos. The examiner stated that Bernhard is able to maintain a fair scheduling scheme as well as be able to synchronize the data flows between the cells. Once again, the examiner took this motivation from Bernhard in paragraphs 58 and 59.

As a result, the claims are written such that they read upon the cited references.

Nonetheless, the examiner performed another search and is relying on Norstrom et al. (US PG PUB 2003/0078045 A1) to disclose the argued limitation.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1, 2, 3, 6, 7, 9-12, 15-18, 20, 25, 26, 29, 30, 32-34, 37, 38, and 40** are rejected under 35 USC 103(a) as being unpatentable over **Rimhagen et al. (US Patent 6,594,245, hereinafter Rimhagen)** in view of **Apostolopoulos et al. (US PGPUB 2003/0009576, hereinafter Apostolopoulos)** and further in view of **Norstrom et al. (US PGPUB 2003/0078045 A1, hereinafter Norstrom)**

Consider **claim 1**. Rimhagen discloses a method for delivering data, in a wireless system comprising a distributed infrastructure of access points (abstract, figure 1, column 1 lines 9-13) said method comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for transmission of said data to a receiver, wherein cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period (column 2 lines 6-12, column 4 lines 3-4, 16-35, 43-46, 53-62, read as the network provides data to the

mobile stations via multiple base stations when the mobile cannot be served by a single station due to congestion);

enabling the transmission of said data to said server via said plurality of access points, wherein said data is transmitted in a pattern that uses at least two access points during at least some portion of said data transmission period (figures 1 and 4, column 4 lines 53-62, column 5 lines 20-28, lines 54-56, column 6 lines 27-44, read as transmitting data to a mobile station via a plurality of base stations when a single base station is not capable of sending all of the information on its own);

and determining, during transmission, the bandwidth requirements to enable transmitting at least a portion of said data through a different access point while the transmission is in progress (column 5 lines 14-16, lines 21-27, read as the network analyzes the bandwidth requirements and the network may therefore assign multiple base stations when the bandwidth required for the communication request exceeds the available bandwidth resources of the best serving base station).

Rimhagen discloses the claimed invention except he fails to disclose determining the performance of at least one of said access points being used for the transmission.

However, Apostolopoulos discloses performance of at least one of said access points being used for the transmission (paragraphs 52, 149, read as a mobile client moves away from one base station and towards another base station, the channel quality of the first base station and the second base station decreases and increases, respectively. When in region B, the second station rises above the add-threshold and as a result simultaneous communication between both



base stations is established. Also, Apostolopoulos shows that encoding may be done in advance (i.e. predetermined) in which case the pre-computed MD streams are stored on a content server).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Apostolopoulos into the teachings of Rimhagen in order for a mobile client to be able to receive and decode a multiple description bitstream to produce usable quality (paragraph 40).

In addition, Rimhagen and Apostolopoulos fail to explicitly teach wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps.

However, Norstrom teaches wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps (paragraphs 15, 26, 27, read as synchronization is accomplished by using a time stamp to calculate and synchronize between the data streams at the first and second servers. The synchronization is read as performance since the time stamps are used to establish synchronization. If network does not have data stream synchronization between servers or base stations, performance is lacking. Therefore, the time stamps are calculated (i.e. examined) for synchronization or performance).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Norstrom into the invention of Rimhagen and Apostolopoulos in order to efficiently and seamlessly transmit data to a user from two different locations (paragraph 12).

Consider **claim 10**. Rimhagen discloses a method for delivering data utilizing a multiple access point transmission scheme (abstract, figure 1, column 1 lines 9-13), said method comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for transmission of said data to a receiver wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period (column 2 lines 6-13, column 4 lines 3-4, 16-35, 43-46, 53-62, read as the network provides data to the mobile stations via multiple base stations when the mobile cannot be served by a single station due to congestion);

delivering a first portion of said data to said receiver via first access point; delivering a second portion of said data to said receiver via a second access point, wherein first portion of said data and said second portion of said data are delivered to said receiver utilizing at least one predetermined multi-access transmission scheme (figures 1 and 4, column 4 lines 53-62, column 5 lines 20-28, lines 54-56, column 6 lines 27-44, read as transmitting data to a mobile station via a plurality of base stations when a single base station is not capable of sending all of the information on its own); and

determining, during the delivering of said first and second portions, the bandwidth requirements performance of at least one of said access points being used for the delivering of said first and second portions to enable delivering at least a portion of said data through a different access point while the first and second portions are being delivered (column 5 lines 14-16, lines 21-27, read as the network analyzes the bandwidth requirements and the network may

therefore assign multiple base stations when the bandwidth required for the communication request exceeds the available bandwidth resources of the best serving base station).

Rimhagen discloses the claimed invention except the determining the performance of at least one of said access points being used for the delivering of said first and second portions.

However, Apostolopoulos discloses determining the performance of at least one of said access points being used for the delivering of said first and second portions (paragraphs 52, 149, read as a mobile client moves away from one base station and towards another base station, the channel quality of the first base station and the second base station decreases and increases, respectively. When in region B, the second station rises above the add-threshold and as a result simultaneous communication between both base stations is established. Also, Apostolopoulos shows that encoding may be done in advance (i.e. predetermined) in which case the pre-computed MD streams are stored on a content server).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Apostolopoulos into the teachings of Rimhagen in order for a mobile client to be able to receive and decode a multiple description bitstream to produce usable quality (paragraph 40).

In addition, Rimhagen and Apostolopoulos fail to explicitly teach wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps.

However, Norstrom teaches wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps (paragraphs 15, 26, 27, read as synchronization is accomplished by using a time stamp to calculate and

synchronize between the data streams at the first and second servers. The synchronization is read as performance since the time stamps are used to establish synchronization. If network does not have data stream synchronization between servers or base stations, performance is lacking. Therefore, the time stamps are calculated (i.e. examined) for synchronization or performance).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Norstrom into the invention of Rimhagen and Apostolopoulos in order to efficiently and seamlessly transmit data to a user from two different locations (paragraph 12).

Consider **claim 16**. Rimhagen discloses a system for data delivery in a wireless system comprising a distributed infrastructure of access points (abstract, column 1 lines 9-13), said system comprising:

an access point identifier that identifies a plurality of access points to be used cooperatively in combination with each other for the transmission of said data from a sender to a receiver wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period (column 2 lines 6-13, column 4 lines 3-4, 16-35, 43-46, 53-62, read as the network provides data to the mobile stations via multiple base stations when the mobile cannot be served by a single station due to congestion);

a multiple-access point data transmission enabler communicatively coupled to said access point identifier, said multi-access point data transmission enabler enabling the transmission of said data receiver via said plurality of access points by utilizing at least one multi-access point transmission scheme that uses at least two access points during at least some portion of said data transmission period (figures 1 and 4, column 4 lines 53-62, column 5 lines 20-28, lines 54-56,

column 6 lines 27-44, read as transmitting data to a mobile station via a plurality of base stations when a single base station is not capable of sending all of the information on its own); and wherein said multi-access point data transmission enabler determines, during the transmission the bandwidth requirements to enable transmitting at least a portion of said data through a different access point while the transmission is in progress (column 5 lines 14-16, lines 21-27, read as the network analyzes the bandwidth requirements and the network may therefore assign multiple base stations when the bandwidth required for the communication request exceeds the available bandwidth resources of the best serving base station).

Rimhagen discloses the claimed invention except he fails to disclose determining the performance of at least one of said access points being used for the transmission.

However, Apostolopoulos discloses performance of at least one of said access points being used for the transmission (paragraphs 52, 149, read as a mobile client moves away from one base station and towards another base station, the channel quality of the first base station and the second base station decreases and increases, respectively. When in region B, the second station rises above the add-threshold and as a result simultaneous communication between both base stations is established. Also, Apostolopoulos shows that encoding may be done in advance (i.e. predetermined) in which case the pre-computed MD streams are stored on a content server).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Apostolopoulos into the teachings of Rimhagen in order for a mobile client to be able to receive and decode a multiple description bitstream to produce usable quality (paragraph 40).

In addition, Rimhagen and Apostolopoulos fail to explicitly teach wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps.

However, Norstrom teaches wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps (paragraphs 15, 26, 27, read as synchronization is accomplished by using a time stamp to calculate and synchronize between the data streams at the first and second servers. The synchronization is read as performance since the time stamps are used to establish synchronization. If network does not have data stream synchronization between servers or base stations, performance is lacking. Therefore, the time stamps are calculated (i.e. examined) for synchronization or performance).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Norstrom into the invention of Rimhagen and Apostolopoulos in order to efficiently and seamlessly transmit data to a user from two different locations (paragraph 12).

Consider **claim 25**. Rimhagen discloses a computer usable medium having computer usable code (abstract, figure 1 column 1 lines 9-13), embodied therein for causing a computer to perform operation comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for transmission of said data to a receiver, wherein cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period (column 2 lines 6-12, column 4 lines 3-4, 16-35, 43-46, 53-62, read as the network provides data to the

mobile stations via multiple base stations when the mobile cannot be served by a single station due to congestion);

enabling the transmission of said data to said server via said plurality of access points, wherein said data is transmitted in a pattern that uses at least two access points during at least some portion of said data transmission period (figures 1 and 4, column 4 lines 53-62, column 5 lines 20-28, lines 54-56, column 6 lines 27-44, read as transmitting data to a mobile station via a plurality of base stations when a single base station is not capable of sending all of the information on its own);

and determining, during transmission, the bandwidth requirements to enable transmitting at least a portion of said data through a different access point while the transmission is in progress (column 5 lines 14-16, lines 21-27, read as the network analyzes the bandwidth requirements and the network may therefore assign multiple base stations when the bandwidth required for the communication request exceeds the available bandwidth resources of the best serving base station).

Rimhagen discloses the claimed invention except he fails to disclose determining the performance of at least one of said access points being used for the transmission and that this transmission is predetermined.

However, Apostolopoulos discloses performance of at least one of said access points being used for the transmission and that this transmission is predetermined (paragraphs 52, 149, read as a mobile client moves away from one base station and towards another base station, the channel quality of the first base station and the second base station decreases and increases, respectively. When in region B, the second station rises above the add-threshold and as a result

simultaneous communication between both base stations is established. Also, Apostolopoulos shows that encoding may be done in advance (i.e. predetermined) in which case the pre-computed MD streams are stored on a content server).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Apostolopoulos into the teachings of Rimhagen in order for a mobile client to be able to receive and decode a multiple description bitstream to produce usable quality (paragraph 40).

In addition, Rimhagen and Apostolopoulos fail to explicitly teach wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps.

However, Norstrom teaches wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps (paragraphs 15, 26, 27, read as synchronization is accomplished by using a time stamp to calculate and synchronize between the data streams at the first and second servers. The synchronization is read as performance since the time stamps are used to establish synchronization. If network does not have data stream synchronization between servers or base stations, performance is lacking. Therefore, the time stamps are calculated (i.e. examined) for synchronization or performance).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Norstrom into the invention of Rimhagen and Apostolopoulos in order to efficiently and seamlessly transmit data to a user from two different locations (paragraph 12).



Consider **claim 33**. Rimhagen discloses a method for delivering data, in a wireless system comprising a distributed infrastructure of access points (abstract, figure 1, column 1 lines 9-13), said method comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for transmission of said data to a receiver (column 2 lines 6-12, column 4 lines 3-4, 16-35, 43-46, 53-62, read as the network provides data to the mobile stations via multiple base stations when the mobile cannot be served by a single station due to congestion);

enabling the transmission of said data to said receiver via said plurality of access points utilizing at least one multi-access point transmission scheme (figures 1 and 4, column 4 lines 53-62, column 5 lines 20-28, lines 54-56, column 6 lines 27-44, read as transmitting data to a mobile station via a plurality of base stations when a single base station is not capable of sending all of the information on its own);

and determining, during transmission, the bandwidth requirements to enable transmitting at least a portion of said data through a different access point while the transmission is in progress (column 5 lines 14-16, lines 21-27, read as the network analyzes the bandwidth requirements and the network may therefore assign multiple base stations when the bandwidth required for the communication request exceeds the available bandwidth resources of the best serving base station).

Rimhagen discloses the claimed invention except he fails to disclose determining the performance of at least one of said access points being used for the transmission.

However, Apostolopoulos discloses performance of at least one of said access points being used for the transmission (paragraphs 52, 149, read as a mobile client moves away from

one base station and towards another base station, the channel quality of the first base station and the second base station decreases and increases, respectively. When in region B, the second station rises above the add-threshold and as a result simultaneous communication between both base stations is established. Also, Apostolopoulos shows that encoding may be done in advance (i.e. predetermined) in which case the pre-computed MD streams are stored on a content server).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Apostolopoulos into the teachings of Rimhagen in order for a mobile client to be able to receive and decode a multiple description bitstream to produce usable quality (paragraph 40).

In addition, Rimhagen and Apostolopoulos fail to explicitly teach wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps.

However, Norstrom teaches wherein data packets of said data comprise timestamps and wherein said performance is based at least on examination of said timestamps (paragraphs 15, 26, 27, read as synchronization is accomplished by using a time stamp to calculate and synchronize between the data streams at the first and second servers. The synchronization is read as performance since the time stamps are used to establish synchronization. If network does not have data stream synchronization between servers or base stations, performance is lacking. Therefore, the time stamps are calculated (i.e. examined) for synchronization or performance).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Norstrom into the invention of

Rimhagen and Apostolopoulos in order to efficiently and seamlessly transmit data to a user from two different locations (paragraph 12).

Consider **claims 2 and as applied to claims 1**. Rimhagen and Apostolopoulos disclose wherein said pattern is selected from a group of predetermined transmission patterns (Rimhagen; abstract, figures 2 and 4, column 2 lines 6-15, column 4 lines 53-62, column 5 lines 20-28, 54-56, column 6 lines 27-44).

Consider **claims 3, 26, and 34 and as applied to claims 1, 25, and 33, respectively**. Rimhagen and Apostolopoulos disclose wherein said pattern is a split-balanced transmission pattern (Rimhagen; abstract, figures 2 and 4, column 2 lines 6-15, column 4 lines 53-62, column 5 lines 20-28, 54-56, column 6 lines 27-44).

Consider **claims 6, 15, 29, and 37 and as applied to claims 1, 10, 25 and 33, respectively**. Rimhagen and Apostolopoulos disclose wherein respective access points of said plurality of access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner (Rimhagen; abstract, figures 2 and 4, column 2 lines 6-15, column 4 lines 53-62, column 5 lines 20-28, 54-56, column 6 lines 27-44).

Consider **claims 7, 12, 30, and 38 and as applied to claims 1, 11, 25 and 33, respectively**. Rimhagen and Apostolopoulos disclose wherein respective access points of said plurality of access points operate cooperatively and in combination by facilitating the transmission of a majority of said data over a first access point and the transmission of a remainder of said data over a second access point (Rimhagen; abstract, figures 2 and 4, column 2 lines 6-15, column 4 lines 53-62, column 5 lines 20-28, 54-56, column 6 lines 27-44).

Consider **claims 9, 32, and 40 and as applied to claims 1, 25 and 33, respectively.**

Rimhagen and Apostolopoulos disclose wherein said pattern is selected based upon information from the group consisting of various predetermined patterns, measurements from a variety of sources, and the content of said data to be transmitted (Rimhagen; column 3 lines 52-62, Apostolopoulos; paragraphs 52, 149).

Consider **claim 11 and as applied to claim 10.** Rimhagen and Apostolopoulos disclose wherein said multi-access point transmission scheme comprises a split-balanced transmission scheme wherein data portions are evenly balanced across said plurality of access points (Rimhagen; abstract, figures 2 and 4, column 2 lines 6-15, column 4 lines 53-62, column 5 lines 20-28, 54-56, column 6 lines 27-44).

Consider **claim 17 and as applied to claim 16.** Rimhagen and Apostolopoulos disclose a measurement subsystem coupled to said multi-access point data transmission enabler, said measurement sub-system providing measurements that are used by said multi-access point data transmission enabler to determine data packet allocations across said plurality of access points (Rimhagen; column 2 lines 6-12, column 6 lines 27-44, column 7 line 37 – column 8 line 8).

Consider **claim 18 and as applied to claim 17.** Rimhagen and Apostolopoulos disclose a data packet relaying component coupled to said multi-access point data transmission enabler, said data packet relaying component for relaying data packets to said receiver that are transmitted to said data packet relaying component from said sender (Rimhagen; abstract, figures 2 and 4, column 2 lines 6-15, column 4 lines 53-62, column 5 lines 20-28, 54-56, column 6 lines 27-44, column 7 line 37 – column 8 line 8).

Consider **claim 20 and as applied to claim 18**. Rimhagen and Apostolopoulos disclose wherein said access point identifier, said multi-access point data transmission enabler, said measurement sub-system, and said data packet relaying component are not all resident at the same system nodes (Rimhagen; abstract, figures 2 and 4, column 2 lines 6-15, column 4 lines 53-62, column 5 lines 20-28, 54-56, column 6 lines 27-44).

**Claims 4, 5, 13, 14, 19, 21, 22, 23, 24, 27, 28, 31, 35, 36, and 39** are rejected under 35 USC 103(a) as being unpatentable over **Rimhagen et al. (US Patent 6,594,245, hereinafter Rimhagen)** in view of **Apostolopoulos et al. (US PG PUB 2003/0009576, hereinafter Apostolopoulos)** in view of **Norstrom et al. (US PG PUB 2003/0078045 A1, hereinafter Norstrom)** and further in view of **Nakamichi et al. (US PG PUB 2002/0085498, hereinafter Nakamichi)**.

Consider **claims 4, 27, 35, and as applied to claims 1, 25, and 33, respectively**. Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose the pattern is a site selection transmission pattern.

Nakamichi discloses a site selection transmission pattern (paragraphs 10, 11, 15, 16, 17, 41, 50, and 147, read as the access points in the network adjust the way data is transmitted based on feedback obtained from monitoring the traffic congestion of the access points).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to enable dynamic load balancing in the network (paragraphs 10 and 11).

Consider **claims 5, 14, 28, and 36 and as applied to claims 1, 12, 25, and 33, respectively.** Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose wherein said pattern is a combination of a split-balanced transmission pattern and a site selection transmission pattern.

Nakamichi discloses wherein said pattern is a combination of a split-balanced transmission pattern and a site selection transmission pattern (paragraphs 10, 11, 15, 16, 17, 41, 50, and 147, read as the access points in the network adjust the way data is transmitted based on feedback obtained from monitoring the traffic congestion of the access points).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to enable dynamic load balancing in the network (paragraphs 10 and 11).

Consider **claims 8, 13, 31, and 39 and as applied to claims 7, 12, 30, and 38, respectively.** Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose wherein said remainder of said data is used to gather information related to said second access point.

Nakamichi discloses wherein said remainder of said data is used to gather information related to said second access point (paragraphs 10, 11, 15, 16, 17, 41, 50, and 147, read as the access points in the network adjust the way data is transmitted based on feedback obtained from monitoring the traffic congestion of the access points).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to enable dynamic load balancing in the network (paragraphs 10 and 11).

Consider **claim 19 and as applied to claim 18**. Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose wherein said access point identifier, said multi-access point data transmission enabler, said measurement sub-system, and said data packet relaying component are all resident at the same system node.

Nakamichi discloses wherein said access point identifier, said multi-access point data transmission enabler, said measurement sub-system, and said data packet relaying component are all resident at the same system node (figure 2, paragraphs 35, 53, 55, 57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to decrease delays (paragraph 10).

Consider **claim 21 and as applied to claim 18**. Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose wherein said access point identifier and said multi-access point data transmission enabler are resident at said receiver.

Nakamichi discloses wherein said access point identifier and said multi-access point data transmission enabler are resident at said receiver (figure 2, paragraphs 35, 53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to decrease delays (paragraph 10).

Consider **claim 22 and as applied to claim 18**. Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose wherein said access point identifier and said multi-access point data transmission enabler are resident at said sender.

Nakamichi discloses wherein said access point identifier and said multi-access point data transmission enabler are resident at said sender (figure 2, paragraphs 35, 53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to decrease delays (paragraph 10).

Consider **claim 23 and as applied to claim 18**. Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose wherein said access point identifier and said multi-access point data transmission enabler are resident at least one intermediate system node.

Nakamichi discloses wherein said access point identifier and said multi-access point data transmission enabler are resident at least one intermediate system node (figure 2, paragraphs 35, 53).



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to decrease delays (paragraph 10).

Consider **claim 24 and as applied to claim 18**. Rimhagen, Apostolopoulos, and Norstrom disclose the claimed invention except they fail to explicitly disclose wherein said access point identifier and said multi-access point data transmission enabler are located at least one of said plurality of access points.

Nakamichi discloses wherein said access point identifier and said multi-access point data transmission enabler are located at least one of said plurality of access points (figure 2, paragraphs 35, 53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Nakamichi into the teachings of Rimhagen, Apostolopoulos, and Norstrom to decrease delays (paragraph 10).

### **Conclusion**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Brandt whose telephone number is (571) 270-1098.

The examiner can normally be reached on 7:30a.m. to 5p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Christopher M. Brandt

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/George Eng/

Supervisory Patent Examiner, Art Unit 2617